

Dos and Don'ts for General Science & Ability Paper

General Science and ability

Hi there, you've done well. Know that acquiring knowledge is one thing and reproducing it in paper according to what's asked is another. There are a few things I would like to highlight.

1. A 5 marks part requires at least 2 and at max 3 sides of a paper. Know that there can be two or three parts of a question and their marks are divided accordingly. So address all of them in a just manner.

2. Focus on time management. You get 35 minutes to solve one question and about 8 minutes per 5 mark part. Manage your time accordingly.

3. You need to understand that your paper is supposed to look more scientific than theoretical. So, add flowcharts and diagrams where required.

4. Your handwriting and neatness can be really impactful. Avoid cutting and overwriting.

5. Focus on your spellings and your grammar.

Here, in GSA there's no deduction in marks but your expression will definitely create an impact.

6. In ability portion, give explanation for analytical ability question in words. You need to understand that a 5 mark part requires all steps written and explained.

Good luck for CSS 2025. You're gonna rock in sha Allah. :)

aids in the excretion of waste products of red-blood cells breakdown.

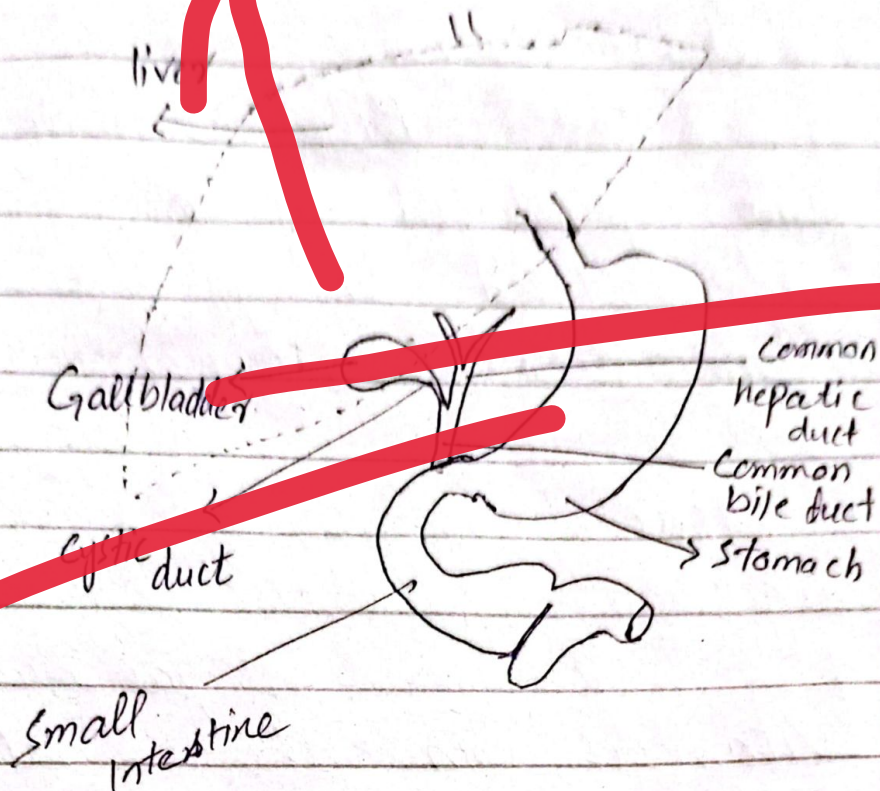


Diagram: Gallbladder

(b) Describe the role of the kidney in excretion.

Answer:-

i- Organ

The kidneys are vital organs in the excretory system responsible for filtering blood to remove waste products, excess substances,

and toxins, which are excreted as urine. They regulate the body's fluid balance, electrolytes, and acid-base balance.

Maintenance. The kidneys also maintain blood pressure through the renin-angiotensin-aldosterone system, produce erythropoietin to stimulate red blood cell production, and activate vitamin D for calcium absorption.

(C) Different methods of solid waste management

1. **Landfills:** waste is buried in the ground. Modern landfills are engineered to reduce environmental impact.

2. **Recycling:** Processing materials to make new products, reducing the need for raw materials.

3. **Composting:** organic waste is decomposed naturally, producing

compost for agriculture.

4. **Incineration:** Waste is burned at high temperature, reducing its volume and sometimes generating energy.

5. **Waste to energy:** Converting waste material processes like anaerobic digestion or thermal treatment.

6. **Source reduction:** Minimizing waste generation through efficient manufacturing and consumption practices.

(D) Define terms

- i. Anaemia:
- ii. Appendicitis:
- iii. Spleen
- iv. Isotones

1) **Anaemia**

A condition characterized by a deficiency of red blood cells or haemoglobin leading to reduced oxygen

transport in abdominal pain, or body, causing fatigue, weakness, and shortness of breath.

Appendicitis: Inflammation of the appendix, often resulting in abdominal pain, nausea, and requiring surgical removal.

Spleen: An organ involved in filtering blood, recycling old red blood cells, storing white blood cells and platelets, and playing a role in the immune system.

iv- Myopia: Also known as nearsightedness, it is a common vision condition where distant objects appear blurry while close objects are seen clearly.

v. Isotones: Atoms of different elements that have the same number of neutrons but different no. of protons.

Proper explanation of each term is required

Q NO. 5:- Answer

(a) The population explosion in Pakistan is due to several factors:

i- **High Birth Rate:** Cultural and social norms favor large families.

ii- **Early Marriage:-** Marrying at a young age increases the reproductive span.

iii- **Lack of education:** Limited access to education, especially for women, result in a lack of awareness about family planning.

iv- **Poor access to contraception**
Inadequate availability and awareness of contraceptive methods.

iv- **Poverty** Economic constraints often lead to larger families as children are seen as assets.

Control measures include:

i- **Education:** promoting literacy

and educational programs, particularly for women.

Family planning: providing accessible and affordable contraceptives services.

Economic development: Improving economic conditions to reduce reliance on large families for labor.

Health care services: Running / Enhancing maternal and child health services.

Awareness Campaign: Running campaigns to change cultural attitudes towards family size.

(b) **Cyclones vs. Tornadoes and Cyclone observed in 2024.**

Difference:

1. **Scale:** Cyclones are large, low-pressure systems spanning hundreds of kilometers, while tornadoes are smaller and more localized.

Duration: Cyclones can last

Add diagrams

Several days to weeks, whereas tornadoes usually last a few minutes or an hour.

Formation: Cyclones form over warm ocean waters, while tornadoes are typically spawned from severe thunderstorms on land.

Wind Speed: Cyclones have lower wind speeds compared to tornadoes, which can have exceeding ~~comph~~ speed.

Cyclone in 2024: Cyclones have lower wind speeds impacted regions including India and Pakistan.

(C) Earthquake Occurance Turkiye's Earthquake in 2023

Earthquake Occurances:

Earthquakes occur due to the sudden release of energy in the Earth's crust, creating seismic waves. This release is often caused by the

movement of tectonic plates
at faults

Turkey's Earthquake in 2023

Casualties: over 50,000

people died.

Intensity: The earthquake had a magnitude of 7.8 on the Richter scale.

d. Definitions

i- Hypocenter:

The hypocenter is the point within the Earth where an Earth quake originates. It is located beneath the Earth's surface.

ii- Epicenter:

The Epicenter is the point on the Earth's surface directly above the hypocenter. It is often where the strongest effects of earth quake are felt.

iii- Eye wall of a Hurricane

The eye wall is a ring of towering clouds that surround the eye.

that surrounded the eye of the hurricane. It contains the most severe weather, including the highest winds and heaviest rains.

(iv) Shallow Focus:

A shallow focus earthquake has a hypocenter located at a depth of less than 70 kilometers below the Earth's surface. These earthquakes typically cause more damage compared to deeper ones.

(v) Parsec

A parsec is a unit of distance used astronomy equivalent to about 3.26 light-years, or approximately 39 trillion kilometers. It is used to measure large distances to astronomical objects outside the solar systems.

Add proper explanation for each term